

Notice of Allowability

Application No.

09/742,229

Examiner

J. Bret Dennison

Applicant(s)

BESHAI ET AL.

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 03/30/2005.
2. ☒ The allowed claim(s) is/are 59 and 60.
3. ☒ The drawings filed on 22 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

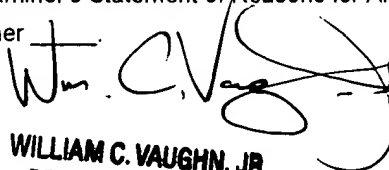
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 8/9/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other


WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment, as instructed by P.E. William Vaughn, was given in a telephone interview with Lindsay McGuinness (Reg. # 38,549) on 8/09/2005.

IN THE CLAIMS

Please cancel claim 61 without prejudice or disclaimer.

Please amend claim 60 as follows:

60. A source node having a plurality of multi-channel links connecting to core nodes in a network, each of said multi-channel links comprising a respective plurality of channels, said source node operable to:

determine, for each multi-channel link in said plurality of multi-channel links:

a first merit index based on a known propagation delay along said each multi-channel link, said first merit index having a first upper bound corresponding to a lowest propagation delay;

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a second merit index determined based on a current vacancy of said each multi-channel link, said second merit index having a second upper bound corresponding to full vacancy in said multi-channel link; and

a composite merit index determined as a sum of said first merit index and said second merit index;

retain, in a control table, an identifier of a last-used channel in each of said multi-channel links for each data stream from among a plurality of data streams originating from said source node;

receive a data unit belonging to a particular data stream from among said data streams;

select a particular multi-channel link from among said plurality of multi-channel links according to a desired distribution of data streams over the plurality of multi-channel links and according to said composite merit index of said each multi-channel link;

ascertain, using said control table, a particular last-used channel by said particular data stream in said particular multi-channel link; and

transmit said data unit over a particular channel in said particular multi-channel link, said particular channel bearing a logical relationship to said particular last-used channel.

Reasons For Allowance

The following is an examiner's statement of reasons for allowance: The prior art of record singly or in combination failed to teach a combination that forms an inventive concept, as claimed therein.

For instance, the prior art of record fails to teach a first merit index based on propagation delay, having an upper bound corresponding to the lowest propagation delay, a second merit index based on current vacancy of each multi channel link, having an upper bound corresponding to full vacancy, and a composite merit index which is the sum of the first and second merit indexes, where the composite merit index is used along with a desired distribution to determine the selection of a multi-channel link.

The determination and summation of the merit indexes reads in the supporting portions of the specification at Page 27, Lines 24-30, Page 28, Lines 1-16. The selection of a particular multi-channel link reads in supporting portion of the specification at Page 28, Lines 15-25. The use of the composite merit index to select a core node for each data stream results in an improved traffic-load balancing technique that equalizes the vacancy across the network, which was not taught or suggested by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

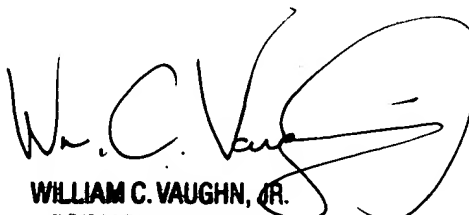
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


J. B. D.
Patent Examiner
Art Unit 2143


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